This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Genetic lineage markers for identifying glioma cancer stem cells	<p>Mouse studies suggest cell-specific expression of GFP-based genetic elements could be useful for identifying compounds that target glioma stem cells. Transgenic mice were engineered to develop gliomas that consist of a large population of highly proliferative GFP-negative cells and a small population of quiescent GFP-positive cells. Chemotherapy eradicated GFP-negative tumor cells but not GFP-positive tumor cells. When chemotherapy was discontinued in these mice, the quiescent GFP-positive tumor cells gradually gave rise to a large population of highly proliferative and differentiated GFP-negative tumor cells. In this model, selective ablation of the GFP-positive cells, even in the absence of chemotherapy, blocked tumor growth and significantly increased survival compared with no ablation ($p=0.001$). Next steps include pooling gliomas from multiple mice and using them in a high throughput small molecule screen.</p> <p>SciBX 5(32); doi:10.1038/scibx.2012.854 Published online Aug. 16, 2012</p>	Unpatented; licensing status not applicable	<p>Chen, J. <i>et al. Nature</i>; published online Aug. 1, 2012; doi:10.1038/nature11287 Contact: Luis F. Parada, The University of Texas Southwestern Medical Center, Dallas, Texas e-mail: luis.parada@utsouthwestern.edu</p>